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# INDUSTRY AND THE URUGUAY ROUND

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**VOLUME**

**6**

**Chemicals, Pharmaceuticals  
and Plastics**

**Forest Products**

Canada

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# **INDUSTRY**

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# **AND THE**

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# **URUGUAY**

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# **ROUND**

## ***VOLUME*** **6**

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**Chemicals, Pharmaceuticals  
and Plastics**

**Forest Products**



This booklet is sixth in a series pertaining to *Industry and the Uruguay Round*. These booklets as well as many other Industry Canada documents are available electronically on the Internet computer network at: [council@istc.ca](mailto:council@istc.ca)

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Aussi disponible en français sous le titre *L'industrie et l'Uruguay Round : Les produits chimiques, pharmaceutiques et plastiques — Les produits forestiers*.




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# CHEMICALS, PHARMACEUTICALS AND PLASTICS

## Importance to Canada

The chemicals, pharmaceuticals and plastics industry is the third largest manufacturing sector in Canada in terms of value of output. Total shipments in 1993 amounted to \$30.2 billion. To this amount may be added \$0.9 billion in shipments of potash, mostly used as a fertilizer.

Products of the chemicals sector, worth \$18.1 billion in 1993, include commodity-grade inorganic and organic chemicals, resins, elastomers, fertilizers and crop protection chemicals, paints and varnishes, soap and cleaning compounds as well as fine and specialty chemicals. Shipments of pharmaceuticals in 1993 amounted to \$4.4 billion, while shipments of plastics that same year were worth \$7.7 billion.

Sectors of the chemicals, pharmaceuticals and plastics industry together accounted for 5.4 percent of total manufacturing employment in Canada, and ranked third in terms of manufacturing value-added to the gross domestic product.

The Canadian industry is dominated by foreign-owned multinational corporations. Canadian-owned firms, with some notable exceptions, tend to be small, and primarily serve niche markets. Multinational firms account for about 75 percent of assets and sales.

There are over 1 800 establishments employing about 153 000 persons. About 70 percent of these establishments are located in Ontario and Quebec.

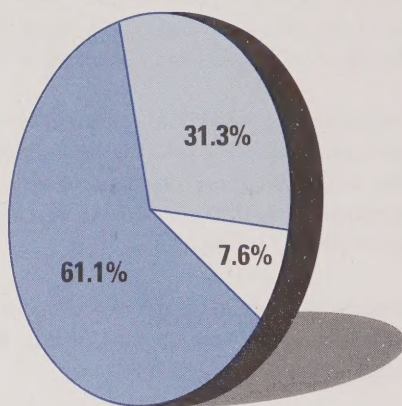
Exports and imports in 1993 totalled \$9.4 billion and \$15.0 billion, respectively. Exports were primarily commodity-grade products and accounted for approximately one half of factory shipments. Imports represented 42 percent of the domestic market and were composed largely of specialty and formulated chemicals tailored for specific end uses and pharmaceuticals. Overall, the United States received 81 percent of our exports, and accounted for 78 percent of Canada's imports.

Inorganic chemicals are produced in 130 establishments across the country. Shipments by Canadian inorganic chemicals firms in 1993 amounted to \$2.6 billion. Total exports were \$1.6 billion, an increase of 4.2 percent over the 1992 level. Total imports were \$1 billion, an increase of 10.5 percent over the 1992 level. Overall, the United States accounted for about 86 percent of export value and 82 percent of import value. The second major trading partner was the European Union (EU), which accounted for 6 percent of export value and 11 percent of import value.

## Inorganic Chemicals



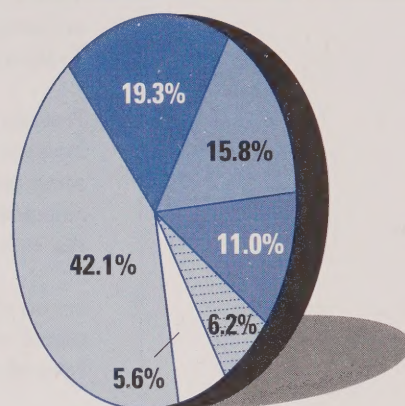
**Figure 1**  
**Destinations of Canadian Chemicals Shipments, 1993**



Total value = \$18.1 billion

Canada      Other  
United States

**Figure 2**  
**Chemicals Exports to Non-U.S. Destinations, 1993**



Total value = \$1 382 million

European Union      Australia and New Zealand  
Japan      Korea  
Taiwan      Other

## Petrochemicals

Some 150 establishments produce petrochemicals in Canada. Total sales of these firms in 1993 rose by 2 percent to \$6.4 billion, reversing the downward slide of the previous four years. Exports at \$3.45 billion were 10 percent higher than in 1992, whereas imports were \$3.2 billion, nearly 23 percent above the 1992 level. The United States accounted for 74 percent of Canadian export value and 90 percent of import value. While the EU was Canada's second most valuable import source of petrochemicals, countries listed in the "other" category ranked second in terms of export destination, accounting for 10 percent of exports.

## Organic Specialty Chemicals

There are some 90 establishment engaged in the manufacture of these chemicals. Total shipments in 1993 amounted to \$1.1 billion. Total exports and imports in 1993 were \$696 million and \$2.6 billion, respectively. Exports accounted for 60 percent of shipments, of which nearly nine tenths were shipped to the United States. Imports constituted 85 percent of the domestic market, nearly two thirds originating in the United States. The European Union was the second largest trading partner, accounting for 4.5 percent of export value and 29.5 percent of import value.



## **Fertilizer Industry**

There are 14 primary fertilizer producers in Canada. They employ 5 700 persons and produce about 19 million tonnes of fertilizer material, of which 75 percent is exported. In terms of value of shipments, phosphates account for 10 percent, nitrogen fertilizers 40 percent, and potash 50 percent. In 1993, exports totalled \$1.9 billion, including potash valued at \$1.2 billion and sulphur valued at \$380 million. The primary use for sulphur is in manufacture of sulphuric acid for phosphate fertilizer manufacture.

The fertilizer industry's major strengths are availability and competitive prices of raw materials and larger-scale modern technology plants. Fertilizers are commodity-grade chemicals and are delivered on the basis of low price, which is the most important consideration. The United States remains the major market for nitrogen fertilizers. Potash fertilizers are exported primarily to the United States. Overseas markets remain marginal because of high transportation costs.

## **Paints and Coatings Industry**

The Canadian paints and coatings industry is a part of the formulated chemicals sector. There are around 130 manufacturers, employing 7 500. Manufacturers represent a mix of wholly owned Canadian as well as international companies.

In 1993, the Canadian paints and coatings industry had shipments estimated at \$1.5 billion, divided almost equally between the trade sales paint market and the industrial coatings market. About 10 percent of the production value was exported, primarily to the United States.

The industrial coatings sector has been prominent in the development of innovative technology, and a number of firms have been successful in opening new markets in the United States. However, consumer paint manufacturers tend to have a more regional focus. They produce paint in small batches and have no competitive advantage vis-à-vis larger American paint manufacturers.

## **Pesticides Industry**

The pesticides industry in Canada consists of subsidiaries of multinational life sciences companies which, for the most part, import active ingredients or finished products. Formulation is carried on at 10 locations. The industry employs approximately 1 000 people on a permanent basis, and considerably more seasonally. In addition, approximately 2 000 people are employed in downstream distribution.

Most products (84 percent) are for agricultural use: herbicides (75 percent), insecticides (4 percent) and fungicides (5 percent). Other markets are for forestry, industrial and home use. According to the Crop Protection Institute, the current value of sales at the manufacturing/formulator level is about \$1 billion. Exports account for less than 5 percent of total sales.

## **Pharmaceuticals Industry**

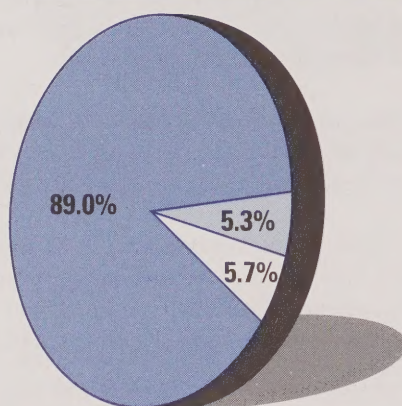
The pharmaceuticals industry researches, develops, manufactures and markets products for the prevention and/or treatment of disease. Products can be divided into two broad categories: prescription drugs, which are available only under authorization of a qualified medical practitioner and are not marketed to the general public, and over-the-counter or "self-medication" products, which are generally available without restriction and may be advertised to the public.



The industry comprises 122 establishments and employs 21 000; about 85 percent of both are in the brand-name sector, which formulates dosage products and accounts for 90 percent of the Canadian market. Over 80 percent of manufacturing establishments are in Quebec and Ontario. Research and development spending in 1992, the most recent year for which these data are available, totalled \$413 million, concentrated in Quebec (41 percent) and Ontario (43 percent).

In 1993, manufacturers' sales amounted to \$4.4 billion, of which 44 percent were patented drugs. Exports in 1993 totalled \$492 million and imports \$2.0 billion. About 35 percent of imports were active ingredients used in making final products.

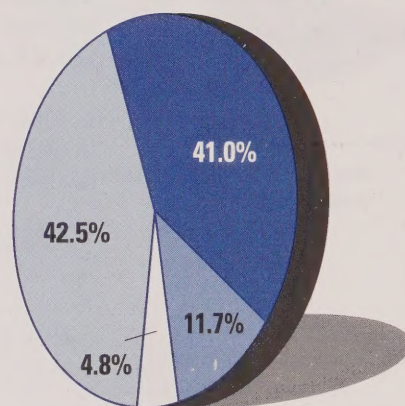
**Figure 3**  
**Destination of Canadian**  
**Pharmaceutical Shipments, 1993**



Total value = \$4.37 billion

Canada	Other
United States	

**Figure 4**  
**Pharmaceuticals Exports to**  
**Non-U.S. Destinations, 1993**



Total value = \$249 million

European Union	Australia and New Zealand
Japan	Other

## Plastics Industry

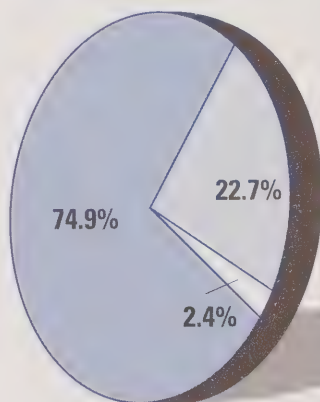
The plastics industry comprises companies that transform synthetic resins into plastic products by any of a variety of processes. The industry consists of about 1 220 establishments that have plastics processing as their primary activity. The main end-use markets are packaging, construction products and automotive components.

Over the past 30 years, plastics has been Canada's fastest-growing manufacturing industry in terms of both employment and output. The dramatic growth in the plastics industry has been driven by the versatility of plastics compared with other materials. Due to advantages related to energy efficiency, ease of processing, high strength-to-weight ratio and corrosion resistance, plastics continue to be the material of choice for many applications.

In 1993, the industry employed 60 000 people and had output worth \$7.7 billion. Traditionally, it has had a domestic focus, and has consistently had a trade deficit. Over 90 percent of exports go to the United States, and imports from the United States represent about 80 percent of all imported plastic products. Since the implementation of the Canada-United States Free Trade Agreement (FTA) in 1989, both imports and exports have grown substantially, with exports growing more rapidly.

Exports to offshore markets are relatively small at present, in many cases limited by the impact of transportation costs. Except for highly specialized products, the real opportunity in distant markets likely lies in the exportation of Canadian technology through joint ventures or alliances with foreign companies. Highly specialized products can be exported around the world, and Canadian exports of this nature are expected to increase as more companies develop competitive advantage through innovation.

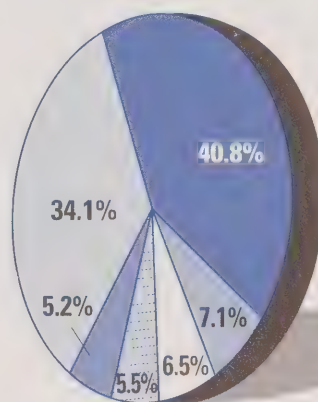
**Figure 5**  
**Destination of Canadian**  
**Plastics Shipments, 1993**



Total value = \$7.7 billion

Canada	Other
United States	

**Figure 6**  
**Plastics Exports to**  
**Non-U.S. Destinations, 1993**



Total value = \$181 million

European Union	Australia
Japan	Argentina
Hong Kong	Other





## Impact of the GATT Uruguay Round

The results of the multilateral trade negotiations under the General Agreement on Tariffs and Trade (GATT), known as the Uruguay Round negotiations, will lead to further market liberalization. For chemicals and plastics, Canada, the European Union, Japan, the United States as well as a number of other industrialized countries such as Switzerland and Republic of Korea have agreed to extensively harmonize tariffs by chapter of the Harmonized Commodity Description and Coding System (HS) at relatively low rates. For pharmaceutical products, tariffs have been eliminated as of January 1, 1995. Together with other relevant Uruguay Round results described below, lower tariffs will improve access to offshore markets for competitive Canadian firms.

In Canada, pre-Uruguay Round tariffs ranged from zero for inorganic acids, bases and many other bulk inorganic chemicals to 8.5–9.2 percent for bulk plastic resins, 9.2–12.5 percent for petrochemicals and many fine chemicals, and around 13.5 percent for fabricated plastics.

European Union tariffs were in the range of 8–10 percent for petrochemicals, 8–12.5 percent for bulk plastic resins and 7.6–12.5 percent for fabricated plastics.

### ***Harmonization Levels of Tariffs for Chemicals and Plastics, and Tariff Elimination for Pharmaceuticals***

HS Chapter	Title	Harmonized Rate (percent)
28	Inorganic chemicals	5.5
29	Organic chemicals	
	2901 to 2902	0
	2903 to 2915	5.5
	2916 to 2942 <sup>a</sup>	6.5
30	Pharmaceuticals	0
31	Fertilizers	6.5
32	Tanning/dyeing extracts	6.5
33	Essential oils	6.5
34	Soaps, etc.	6.5
35	Albuminoidal substances	6.5
36	Explosives, etc.	6.5
37	Photographic goods	6.5
38	Miscellaneous chemical products	6.5
39	Plastics and articles	6.5

<sup>a</sup> Tariffs on all products classified under HS groups 2936, 2937, 2939 and 2941 are being eliminated as part of the "zero-for-zero" agreement on pharmaceuticals.

Japan has levied 6–8 percent on petrochemicals, approximately 6 percent on bulk plastic resin and 5–7.8 percent on fabricated plastics.

The Uruguay Round negotiations have resulted in agreement that the new harmonized tariff rates will be phased in from the levels actually applied, rather than from bound levels. However, where applied rates are below harmonized rates, participating countries such as Canada will generally maintain the lower rate. Tariff harmonization will result in deeper cuts for higher chemical tariffs, but with a longer phase-in period of 10 years for those tariffs that have exceeded 10 percent. Tariff cuts on chemicals and plastics will be phased over five, 10 or 15 equal, annual steps starting January 1, 1995. For tariff lines with pre-agreement bound rates of 10 percent or less, the cuts will be phased over five stages, for tariff lines with bound rates between 10.1 and 25 percent, reductions will be phased over 10 stages, while for tariff lines exceeding 25 percent, reductions will be phased over 15 stages.

Developing countries will bind many of their tariffs, which will improve access to their markets and may encourage Canadian producers to explore trade opportunities in some of these countries.

Tariff reductions or elimination will lower the input costs for the chemicals, plastics and pharmaceuticals industry and users of its products.

The Agreement on Trade-related Aspects of Intellectual Property Rights will provide manufacturers of pharmaceuticals and other chemical specialties with improved patent protection (usually 20 years).

The Agreement on Technical Barriers to Trade will reduce the possibility that technical regulations and standards, as well as testing and certification procedures, will create unnecessary barriers to trade. This will improve access to foreign markets for Canadian chemicals and plastics producers. For pharmaceuticals and biologicals (e.g. vaccines), the agreement should streamline to some extent foreign administrative and product registration processes related to health regulations.

Research-intensive subsectors like pharmaceuticals will benefit from the provisions of the Agreement on Subsidies and Countervailing Measures. Under the agreement, industrial research projects benefiting from subsidies of up to 75 percent of eligible project costs, or pre-competitive development projects subsidized up to 50 percent of eligible costs, will not be countervailable or otherwise actionable.



**Table 1**  
**Value of Exports and Foreign Tariff Rates on Chemicals, Pharmaceuticals and Plastics,**  
**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Exports, 1993	European Union Tariff Rates		Japan Tariff Rates		Australia <sup>a</sup> Tariff Rates	
			Before	After	Before	After	Before	After
		(\$ millions)	(percent)					
<b>Industrial chemicals:</b>								
2814.10	ammonia	169	11	5.5	3.7	2.5	2 (U)	10
2814.20								
2818.10	aluminum oxide,	141	5.2-5.7	4-5.5	4.9	0-3.3	2 (U)	10
2818.20	hydroxide and artificial							
2818.30	corundum							
2829.11	chlorates	166	4.8-8	0-5.5	4.9-5.8	0-3.9	2 (U)	10
2829.19								
2844.10	natural uranium	339	0-7.5	0-5.5	0-3.7	0	2 (U)	10
2844.20								
2844.30								
2844.40	radioactive elements and isotopes	128	0-5.3	0	0	0	2 (U)	0
2902.50	styrene	319	6	0	8	0	20 (U)	5
2903.11	saturated chlorinated	86	12	5.5	4.6-5.8	3.1-3.9	2-30 (U)	10
2903.19	derivatives of acyclic hydrocarbons							
2905.11	methanol	196	13	5.5	4.9	0	2 (U)	10
2905.31	ethylene glycol	186	13	5.5	12	5.5	30 (U)	10
2909.11	acyclic ethers	233	7.4-8.4	5.5	4.6	3.1	2-10 (U)	10
2909.19								
Total: industrial chemicals		3 434						



Table 1 (continued)

**Value of Exports and Foreign Tariff Rates on Chemicals, Pharmaceuticals and Plastics,**  
**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Exports, 1993	European Union Tariff Rates		Japan Tariff Rates		Australia <sup>a</sup> Tariff Rates	
			Before	After	Before	After	Before	After
		(\$ millions)	(percent)					
<b>Fine and specialty chemicals:</b>								
3307.10	shaving and bath	106	6.6	6.5	5.8-8.2	3.9-5.4	30 (B)	10
to 3307.90	preparations, deodorizers, contact lens solutions							
3401.11	soap	62	6.9	0	5.8-6.9	0	12 (B)	10
to 3401.19								
3402.11	organic surface-active	104	6.9	0-4	5.8-6.2	0	15 (B)	10
to 3402.90	agents, other than soap							
3601.00	propellant powders	50	5.7	5.7	6.4	6.4	2 (U)	10
3702.10	photographic film	149	5.3-7.1	5.3-8.2	3.7-8.2	0	10-27.5 (B)	10
to 3702.95								
3703.10	photographic paper	108	7.6	6.5	3.7-6.6	0	27.5 (B)	10
3703.20								
3703.90								
3706.10	cinematographic film	126	0 to 1.90 ECU/100 m	0-6.5	0 to 30 ¥/m	0	0 (U)	10
3706.90								
3811.11	anti-knock additives for	178	5.3-7.2	5.3-6.5	4.6-5.8	0	2-10 (U)	10
to 3811.90	mineral oils							
3815.11	reaction initiators,	74	6.6	6.5	0-5.8	0-3.9	15 (U)	10
to 3815.90	catalysts							
Total: fine and specialty chemicals		1 543						



**Table 1 (continued)**

**Value of Exports and Foreign Tariff Rates on Chemicals, Pharmaceuticals and Plastics,**

**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Exports, 1993	European Union Tariff Rates		Japan Tariff Rates		Australia <sup>a</sup> Tariff Rates	
			Before	After	Before	After	Before	After
		(\$ millions)	(percent)					
<b>Fertilizers:</b>								
3102.10	urea	286	8-11	6.5	0	0	0 (U)	10
3102.30	ammonium nitrate	57	8	6.5	0	0	0 (U)	10
3104.20	potassium chloride	1 187	0	0	0	0	2 (U)	10
Total: fertilizers		1 635						
<b>Paints and pigments:</b>								
3206.10	titanium, chromium and	103	6-6.9	6-6.5	3.9-4.8	2.6-3.2	20-30 (U)	10
3206.20	cadmium pigments							
3206.30	and preparations							
3208.10	paints and varnishes	72	10	6.5	4.8-6	3.1-4	15 (U)	10
3210.00	to							
3214.10	mastics, painters' fillings	26	5	5	4.9	3.3	15 (B)	10
3214.90								
Total: paints and pigments		292						
<b>Pesticides:</b>								
3808.20	fungicides	13	4.6-6	4.6	5.8	3.9	0-20 (U)	10
3808.30	herbicides	37	6-7.6	6-6.5	5.8	3.9	30 (B)	10
Total: pesticides		61						
<b>Pharmaceuticals:</b>								
3001.10	glands and other organs	61	5.3-12	0	0-5.1	0	2 (U)	0
3001.20	or extracts thereof							
3001.90								
3002.10	blood, anti-sera,	83	5.3-7	0	0-8.5	0	2 (U)	0
3002.90	to vaccines, etc.							

**Table 1 (concluded)**

**Value of Exports and Foreign Tariff Rates on Chemicals, Pharmaceuticals and Plastics,  
Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Exports, 1993 (\$ millions)	European Union Tariff Rates		Japan Tariff Rates		Australia <sup>a</sup> Tariff Rates	
			Before	After	Before	After	Before	After
			(percent)					
3003.10 to 3003.90	medicaments not put up in measured doses or retail packaging	51	5.2-8.9	0	4.9-7.2	0	2 (U)	0
3004.10 to 3004.90	medicaments put up in measured doses or retail packaging	231	5.2-8.9	0	4.9-7.2	0	2 (U)	0
Total: pharmaceuticals		491						
<b>Plastics and articles thereof:</b>		882	12.5	6.5	4.1 or 28 ¥/kg	2.8 or 8.3 ¥/kg	30-45 (U)	10
3901.10 to 3901.90	polymers of ethylene, in primary form							
3902.10 to 3902.90	polymers of propylene and other olefins, in primary form	156	12.5	6.5	4.1 or 32 ¥/kg	2.8 or 10.2 ¥/kg	2-30 (U)	10
3920.10 to 3920.99	plastic plates, sheets, film, etc., not self-adhesive	472	5.7-12.5	5.7-6.5	4.6-7.8	3.1-5.2	2-30 (U)	10
3923.10 to 3923.90	plastic packaging and closure materials	335	5.3-8.4	5.3-6.5	4.9-5.8	3.3-3.9	15-30 (U)	10
3925.10 to 3925.90	builders' ware of plastics, not elsewhere specified	156	8.4	6.5	5.8-7.2	3.9-4.8	15-30 (U)	10
3926.10 to 3926.90	other articles of plastic	297	0-8.4	0-6.5	5.8-7.2	0-4.8	2-84 (U)	10
Total: plastics and articles thereof		3 443						

<sup>a</sup> Australia used many unbound (U) tariff rates prior to 1995. Unbound rates could be raised unilaterally to any level without compensation. All tariff rates shown in the "After" column are bound (B) rates to which Australia agreed to in the Uruguay Round negotiations. Actual rates in the "After" column may be the lower of the "Before" or "After" tariff rates where binding provides a ceiling for unilateral tariff rate increases.





**Table 2**  
**Value of Imports and Canadian Tariff Rates on Chemicals, Pharmaceuticals and Plastics,**  
**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Imports, 1993	Canada Tariff Rates	
			Before	After
		(\$ millions)	(percent)	
<b>Industrial chemicals:</b>				
2815.11 to 2815.30	sodium and potassium hydroxides and peroxides	74	free	free
2818.20	alumina	733	free	free
2844.10	uranium and alloys	73	free	free
2918.11 to 2918.90	carboxylic acids	137	free to 12.5	free to 5.5
2922.11 to 2922.50	oxygen-function amino-compounds	154	11.5 to 12.5	6.5
2924.10 to 2924.29	carboxyamide-function compounds	120	12.5	6.5
2932.11 to 2932.90	heterocyclic compounds with oxygen hetero-atom(s) only	102	12.5	6.5
2933.11 to 2933.90	heterocyclic compounds with nitrogen hetero-atom(s) only	221	5 to 12.5	6.5
2934.10 to 2934.90	other heterocyclic compounds	102	12.5	6.5
Total: industrial chemicals		4 045		

**Table 2 (continued)**

**Value of Imports and Canadian Tariff Rates on Chemicals, Pharmaceuticals and Plastics,  
Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Imports, 1993	Canada Tariff Rates	
			Before	After
		(\$ millions)	(percent)	
Fine and specialty chemicals:				
3303.00	perfumes, toilet water	86	10	6.5
3304.10 to 3304.99	beauty or make-up and skin care preparations	204	9.6 to 12.2	6.5
3305.10 to 3305.90	preparations for use on the hair	142	12.2	6.5
3401.11 3401.19 3401.20	soap	101	12.8 to \$0.0137/kg	6.5 to \$0.0137/kg
3402.11 to 3402.90	organic surface-active agents	266	12.8 to 19.4	6.5
3506.10 3506.91 3506.99	prepared glues and other prepared adhesives, not elsewhere specified	96	10.3 to 12.5	6.5
3703.10 3703.20 3703.90	photographic paper	136	10.4	6.5
3707.10 3707.90	chemical preparations for photographic uses	128	12.5	6.5
3811.11 to 3811.90	anti-knock additives for mineral oils	193	8.5 to 12.5	6.5
3822.00	other composite diagnostic or laboratory agents	188	12.5	6.5
3823.90	residual products not elsewhere specified (reclaiming agents, etc.)	305	free to 12.5	free to 6.5
Total: fine and specialty chemicals		3 663		



**Table 2 (continued)**

**Value of Imports and Canadian Tariff Rates on Chemicals, Pharmaceuticals and Plastics,  
Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Imports, 1993	Canada Tariff Rates	
			Before	After
		(\$ millions)	(percent)	
<b>Fertilizers:</b>				
3102.10 to 3102.90	nitrogenous mineral or chemical fertilizer	62	free	free
3105.30	diammonium phosphate	39	free	free
3105.40	monoammonium phosphate	116	free	free
Total: fertilizers		281		
<b>Paints and colouring matter:</b>				
3204.11 to 3204.90	synthetic organic colouring matter	236	free to 12.5	free to 6.5
3206.10 to 3206.50	titanium, chromium and cadmium pigments, and other colouring matter	154	free to 12.5	free to 6.5
3208.10 to 3209.90	paints and varnishes based on synthetic polymers	348	9.2	6.5
Total: paints and colouring matter		987		
<b>Pesticides:</b>				
3808.10	insecticides	51	free to 7.5	free to 6.5
3808.30	herbicides	257	free to 7.5	free to 6.5
Total: pesticides		421		
<b>Pharmaceuticals:</b>				
3002.10 to 3002.90	blood, anti-sera, vaccines, etc.	182	free to 9.8	free
3004.10 to 3004.90	medicaments put up in measured doses or retail packaging	1 223	free to 9.5 and \$0.33/litre	free



**Table 2 (concluded)**

**Value of Imports and Canadian Tariff Rates on Chemicals, Pharmaceuticals and Plastics,**

**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Imports, 1993	Canada Tariff Rates	
			Before	After
		(\$ millions)	(percent)	
3006.10 to 3006.60	miscellaneous pharmaceutical goods	102	free to 12.5	free
Total: pharmaceuticals		1 596		
<b>Plastics and articles thereof:</b>				
3901.10 to 3901.90	polymers of ethylene, in primary form	225	10.2	6.5
3902.10	polypropylene	106	10	6.5
3904.10	polyvinyl chloride, not mixed	102	10	6.5
3906.10 to 3906.90	acrylic polymers in primary form	195	8.7 to 8.9	6.5
3907.10 to 3907.99	polyacetals, other polymers and epoxide resins	523	8.7 to 11	6.5
3918.10	PVC floor coverings	139	13.5 to 25	6.5
3920.10 to 3920.99	laminated plates, sheets, film . . . , of plastic	637	10 to 13.5	6.5
3921.11 to 3921.90	other plates, sheets, film, foil and strip, of plastic	222	10 to 25	6.5
3924.10	plastic tableware and kitchenware	114	13.6 to 14.2	6.5
3926.10 to 3926.90	other articles of plastic	579	free to 25	free to 6.5
Total: plastics		4 977		



## FOREST PRODUCTS

For more than 200 years, the forest sector has played an integral role in the economic development of Canada. Throughout this period, beginning with the early timber industry to the present day, the sector's growth and continued vitality has been fuelled by demand in markets outside Canada. With about 10 percent of the world's forest land as a resource base, Canada has responded to this demand and, over time, has emerged as the world's largest exporter of forest products.

### Importance to Canada

The forest products industry is one of Canada's leading manufacturing sectors and a major economic force across the country. Overall, it generates almost 2.4 percent of the gross domestic product (GDP) or output of the entire business sector, equal to almost 14 percent of total manufacturing GDP in Canada. The sector is of particular importance to British Columbia, where it accounts for almost half (49 percent) of the province's total manufacturing GDP. In other regions, the comparable share is 24 percent in the Atlantic provinces, 16 percent in Quebec, 12 percent in the Prairies and 6 percent in Ontario.

Canada's forest industry has played and continues to play a significant role in Canada's economic life, employing successive generations of Canadians in numerous communities across the country. In 1993, 260 000 Canadians were employed directly by the industry, including 60 000 employed in forest harvesting (primary sector) and about 200 000 in the manufacturing sector who earned an average wage, including benefits, of more than \$55 000. The industry ranks as Canada's largest non-urban employer, with employees scattered throughout the country at almost 4 000 establishments. About 350 communities across Canada depend upon the industry as the major local wage employer. These communities are concentrated in Quebec, British Columbia and Atlantic Canada.

In addition to the direct employment, there are an estimated 855 000 additional jobs generated indirectly by the forest industry. This total includes approximately 320 000 employees who supply various inputs to the industry, including chemicals, utilities and the like, and various services such as information technology applications and transportation services. A further estimated 535 000 jobs are created through induced employment as a result of spending by those employed in the industry on a diverse range of sectors such as housing, hospitality and retail goods. Overall, the industry contributes over one million jobs across Canada.

In 1993, overall forest products shipments reached \$40.9 billion, of which \$26.7 billion or 65 percent were exported to world markets. Over the past years, the industry has consistently ranked as the largest net contributor to Canada's merchandise trade and, as such, is the most substantive contributor to Canada's yearly merchandise trade surplus.

## Industry Description

Canada's forest products industry is composed of two major industry sectors: the paper and allied industries, and the wood industries.

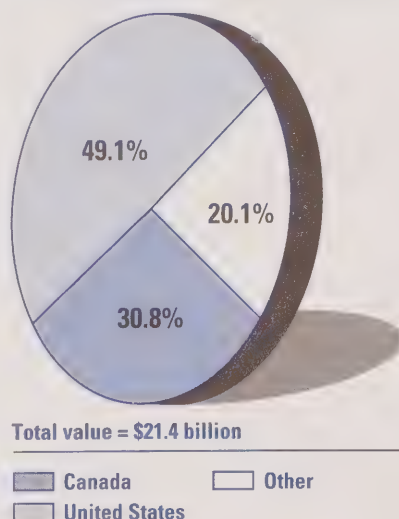
The paper and allied industries sector accounts for approximately 52 percent of total shipments and employs about 100 000 people. It is made up of two distinct groups: the paper group, which produces pulp and paper commodities (market pulp, newsprint, fine papers and paper-board), and the converted group, which produces value-added products (packaging, coated papers, business papers and stationery, tissue and other consumer paper products).

The paper and allied industries sector comprises approximately 680 establishments across Canada, consisting of large, capital-intensive, integrated and non-integrated producers as well as small, regionally based operations. The main producing provinces are Quebec, Ontario and British Columbia, although the industry is present in all regions. The majority of pulp and paper establishments, numbering about 130, are world-scale operations often located in remote communities close to the forest resource. The converted paper products industry numbers about 550 establishments in total, ranging in size from small, non-integrated operations to multi-plant, capital-intensive ones most usually located near urban market areas. The sector is largely Canadian-owned and operated. However, foreign-controlled firms have a significant presence in Canada, notably as sole owners or in partnership with several of the larger integrated companies.

In 1993, shipments of the paper and allied industries sector totalled \$21.4 billion, of which \$15.7 billion came from the pulp and paper group and the balance of \$5.7 billion from the value-added products side. Exports totalled \$14.8 billion in total, 69.2 percent of overall shipments.

The wood industries sector accounts for the remaining balance of almost 48 percent of shipments and also employs about 100 000 employees. This sector consists of two major groups: commodity-grade products (softwood and hardwood lumber and plywood, oriented strandboard, particleboard and miscellaneous panelboard products) and the value-added wood products group (manufactured housing and their various components, doors and windows, kitchen cabinets, hardwood flooring, pallets and millwork).

**Figure 7**  
**Destinations of Canadian Paper and Allied Products Shipments, 1993**







## Strengths and Weaknesses

The wood industries group comprises over 3 000 establishments across Canada but concentrated in British Columbia, Quebec and Ontario. This sector is dominated by the commodity-grade products group, which in 1993 accounted for approximately 78 percent of total wood industry shipments. Establishments that make commodity-grade products (lumber and panel products) tend to range across various size categories. While most firms are Canadian-owned, foreign multinationals also have a significant presence. As for the paper group, most firms are located in remote areas close to forests. On the other hand, the value-added wood products group tends to be generally small in scale, labour-intensive and located in or near urban centres.

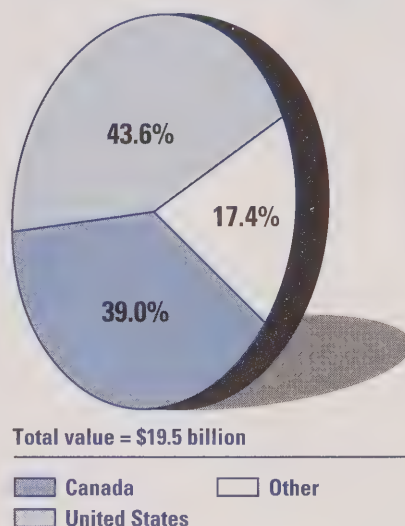
In 1993, wood industries sector shipments totalled \$19.5 billion, of which \$15.3 billion were commodity-grade products and \$4.2 billion were value-added wood products. Wood industries exports totalled \$11.9 billion, 61 percent of total shipments.

Traditionally, Canada's pre-eminent trade position in commodity-grade products was built upon the competitive advantage provided by an abundant, readily accessible, high-quality forest resource. Canada's forest lands contain some of the more valuable species of timber found in the world. Northern softwoods are particularly well-suited to the production of construction materials and pulp and paper products and also benefit from consumer preference for certain applications such as in housing construction. New advances in technology have also allowed the use of extensive reserves of formerly under-utilized species such as aspen and poplar as an important raw material source for pulp and paper and panel products.

Primary sectors such as the lumber, pulp and newsprint industries derive certain comparative advantages from location close to the forest resource. In recent years, the demand for wood chips as a raw material for the pulp and paper industry has led to a significant change in the ownership structures of the paper and allied and wood industries, thus resulting in much greater integration between the operations of these two sectors. This integration has improved economies of scale and raw material utilization.

A further advantage for the Canadian industry has been the country's low energy costs and ample energy supplies. Canada's abundant supply of water resources and relatively low cost of

**Figure 8**  
**Destinations of Canadian Wood Products Shipments, 1993**



electricity have been of particular note for the paper and allied sector. Other factor advantages include the cost of relatively inexpensive input materials (i.e. pulp and finish chemicals), world-scale and state-of-the-art plants, a skilled labour force, and technical and marketing knowledge.

The industry has also benefited from its close geographic proximity to the United States, the world's largest market for forest products. In addition, the industry benefits from ready access to Canada's Atlantic and Pacific ports, which provide strong links to offshore markets in Europe, the Pacific basin and elsewhere.

However, while the Canadian industry has been able to build on these strengths, it also faces many challenges affecting the long-term economic vitality of this important manufacturing sector. The forest industry in several regions of Canada is now operating at the upper limit of economic wood supply and must increasingly rely on more distant, higher-cost and sometimes lower-quality forests at the same time it is required to replant and manage harvested areas. In addition, factor advantages in energy and input materials have eroded in recent years.

Worldwide, the forest industry is confronted with pressures from consumers and governments to address environmental concerns. These concerns include forest management practices and wildlife habitat, mill effluent, solid waste disposal, and demands for products and processes that reduce the burden on the environment. These complex and interrelated issues directly impact on mill operating costs, raise production costs and pose competitive and technical challenges for the international competitiveness of the Canadian forestry sector.

Canadian producers also face continuing competition in the world marketplace from new competitors, from traditional rivals such as U.S. producers with lower overall costs as well as from competitors who are already positioning themselves to serve the expectations of demanding and environmentally aware customers.

The forest products sector is also more sensitive than most other manufacturing sectors to fluctuations in economic activity. Industry's reliance on the big three commodities of softwood lumber, newsprint and market pulp heavily expose Canadian firms to the problems of the "commodity syndrome," most notably cyclical instability, lower profit margins, declining long-term real prices and weak productivity growth. Over the longer term, commodities have steadily declined in importance relative to value-added products. In addition, as marginal suppliers in foreign markets, Canadian firms act as price takers, which exposes them to cyclical demand and prices and results in lacklustre financial performance.

With overall export sales of \$26.7 billion in 1993 and a net trade surplus of \$22.4 billion, Canada is the world's largest exporter of forest products. In 1993, Canada accounted for a 17.5 percent share of global exports, followed by the U.S. at 14.5 percent, Sweden at 9 percent and Finland at 8 percent.



While trade patterns have changed over the course of the past decade, the forest products industry has shown considerable stability over the longer term dating back to 1972. Although the sector has grown by 32 percent since then, its share of the manufacturing sector GDP has remained stable. Various data even suggest that the industry has entered into a phase of relatively modest growth.

Over the past 10 years, Canada's balance of trade in forest products has been relatively stable. More recently, however, beginning in 1991, Canada's balance of trade in forest products has been slightly increasing. The industry itself has undergone some longer-term structural changes, which have impacted on the nature and balance of the two major sectors. Since 1972, the paper and allied products sector has grown by 8 percent overall, while the wood sector has doubled the size of its total output over the same period.

Over the course of the 20th century, the U.S. has traditionally been Canada's most important export market, accounting for between two thirds and three quarters of all foreign market sales in recent years. Other major export markets for Canadian forest products include Japan and other countries in the Pacific Rim as well as the European Union.

Overall, Canada's forest industry output is dominated by the industry's strong production orientation toward the big three commodity-grade products of softwood lumber, newsprint and market pulp, which represent about 75 percent of total production value and over 90 percent of export value. For example, in 1993 exports of commodity-grade products totalled \$25.1 billion, representing 94 percent of total exports, compared with exports of value-added products worth \$1.6 billion or 6 percent of total exports.

To some extent, this emphasis has been influenced by the long-time tariff-free access these products have enjoyed to the vital U.S. market. Only recently, in part as a consequence of the Canada-U.S. Free Trade Agreement implemented in 1989, have Canadian companies begun to expand the range of products sold to the U.S. market to include more value-added products which, unlike the basic commodity-grade products, were formerly subject to a U.S. tariff rate.

Canadian forest products exports also face tariff escalation on higher-value-added products in other major world markets. But in contrast to competing industries in the United States and the Nordic countries, who have successfully raised the value-added component of their export mix to 35.7 percent and 60.6 percent, respectively, Canadian forest products exports remain dominated by sales of commodity-grade products to traditional markets. However, this has now begun to change, as Canadian exports of higher-value-added paper and wood products since the 1980s have shown a rate of growth twice that of the big three commodities.

On an individual market basis, the U.S. market accounted for 71 percent of total Canadian forest products exports. Canadian paper exports totalled \$10.5 billion in 1993, while exports of wood products reached \$8.5 billion. Exports are predominately made up of the traditional big three commodities of softwood lumber, newsprint and market pulp, where Canada has

maintained its role as the principle supplier of these products to the U.S. market. However, changing consumption patterns has weakened Canada's share of the U.S. newsprint and market pulp markets, while various environmental factors, among others, conversely have helped increase Canada's share of the U.S. softwood lumber market. These anomalies notwithstanding, overall growth in this vital market has slowed, falling to a 0.5 annual average growth rate in the 1988–93 period.

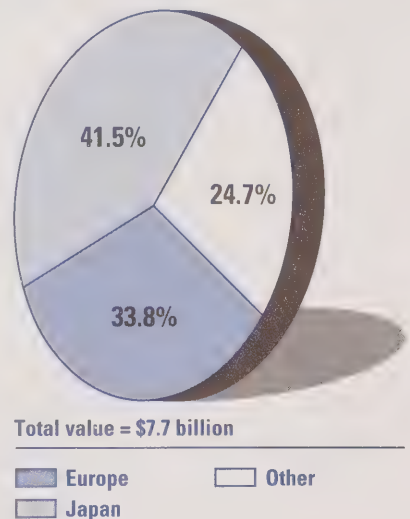
In contrast, since 1988, export markets in Japan and several countries in the Pacific Rim (including Thailand, Taiwan and Republic of Korea) have shown the strongest annual average export growth overall. In part because of market growth rates of 4.4 percent between 1988 and 1993, Japan, has now displaced western Europe as Canada's second largest single-country market for forest products. In 1993, Japan imported \$2.3 billion worth of Canadian wood products and \$900 million worth of paper products.

Canadian producers have historically captured over 50 percent of Japanese imports of softwood lumber, notwithstanding strong competition from U.S. exporters who have benefited from preferential tariff access afforded to U.S. tree species. Recent changes in product standards coupled with changes in Japan's building code are expected to continue to strengthen Canadian access to this market.

Of Canada's traditional markets, the European market has been more troublesome, with sales in recent years actually declining from historical levels. In 1993, Canada exported \$700 million worth of wood products and \$1.9 billion worth of paper products to western Europe. Various trade provisions, including quota constraints on two key products and environmental impediments on both paper and wood products, have restricted Canadian exports to the European market. Differences between European and North American building codes and product standards have also impacted on Canadian trade patterns, as has more intense competition from Nordic suppliers, who do not face the same barriers as Canadian firms.

Outside these more traditional markets, the Canadian forest products industry also serves diverse markets the world over. Most promising in recent years has been the constant rise in exports to Pacific Rim countries, many of which (including Thailand, Taiwan and Republic of Korea) have shown promising growth rates in the 1988–93 period. In 1993, sales to other countries totalled \$400 million for wood products and \$1.5 billion for the paper industries.

**Figure 9**  
**Forest Products Exports to**  
**Non-U.S. Destinations, 1993**







## Paper and Allied Industries

### Impact of the GATT Uruguay Round

This section briefly examines the range and extent of tariff reductions and/or tariff elimination under the Uruguay Round of multilateral trade negotiations under the General Agreement for Tariffs and Trade (GATT) for both major groups of the forest products sector. In addition, this section provides an overview of the various agreements included in the Uruguay Round that address non-tariff barriers and of their most likely impact and effect on trade in forest products.

One of the major achievements of the Uruguay Round negotiations has been the agreement to eliminate tariffs and non-tariff barriers across the entire paper sector. For the first time in the history of the GATT, the major industrialized countries have committed themselves to comprehensive, global free trade in a major export sector of high interest to Canada. This agreement, the most wide-ranging and comprehensive of all the zero-for-zero market access packages negotiated, encompasses the entire paper and allied industries sector (chapter 48 of the Harmonized Commodity Description and Coding System (HS)) including primary paper products (newsprint, fine papers and paperboard) and converted paper products (packaging and coated papers) as well as printed books, newspapers and other products of the printing industry described in chapter 49 of the HS.

#### **Tariffs**

Overall, the agreement to eliminate paper and allied industries tariffs among the industrialized countries marks an important first step in the GATT process. Under this agreement, the major industrialized countries including Canada, the 15 members of the European Union, Japan, New Zealand, Republic of Korea and the United States have agreed to eliminate customs duties on paper products over a maximum phase-in period of 10 years.

In the developing countries, which make up most of the more than 125 countries that negotiated in the Uruguay Round agreement, a breakthrough occurred. For the first time, many of these countries have made individual commitments to both lower tariff and non-tariff barriers and bind a substantial portion of their customs tariff. According to the GATT, the developing economies as a group will reduce most favoured nation (MFN) tariffs on nearly half of their tariff lines (46 percent) covering about one third of their industrial products imports. Of equal interest, tariff bindings have increased from 21 percent to 73 percent for developing economies. Tariff reductions and bindings on this scale will result in more open and secure access to many markets where Canadian paper exports previously faced uncertain barriers.

Under the market access agreement, tariff elimination in the industrialized countries party to the zero-for-zero initiative will generally be phased in over 10 years beginning January 1, 1995. The first tariff rate reduction became effective January 1, 1995, with nine subsequent, equal reductions on January 1 for each of the next nine successive years, resulting in a zero tariff rate by January 1, 2004. Each member may, however, implement its agreed reductions in fewer stages or at other dates.

## Wood Industries

Of the above members participating in this initiative, the EU has taken the most conservative approach in meeting its tariff-cutting commitments. In a number of instances, tariff cuts on paper products have been back-loaded onto the latter five years of the reduction period. This is particularly important for newsprint, as Canada will continue to face relatively high EU tariffs during the first years of the agreement on imports of newsprint outside Canada's current duty-free newsprint quota entering the EU market.

In the case of the wood industries, while Canada was unsuccessful in pressing forward a zero-for-zero Uruguay Round package for the wood industries similar to that for the paper and allied industries package, various key parties have nevertheless undertaken substantial tariff reductions of benefit to Canada. These tariff reductions, estimated by the GATT to represent a 43 percent weighted average reduction in tariffs, cover a wide range of wood and wood products described in chapter 44 of the HS.

Developed and developing markets will implement tariff reductions over a five-year phase-in period beginning January 1, 1995, and followed by four yearly, equal reductions. Under this phase-in period, all tariff cuts will be finalized by January 1, 1999.

### *Tariffs*

As part of the general Uruguay Round tariff reductions and/or eliminations, developed countries have made commitments to reduce tariffs by an average trade-weighted percentage of 40 percent. In the case of wood and wood products, tariff reductions exceed this figure, but vary widely across broad product lines. For example, the GATT has estimated weighted-average, developed-country tariff reductions of 31 percent for wood-based panels, 50 percent for semi-manufactured wood items and up to 67 percent for wood articles, with an overall weighted-average tariff reduction of 43 percent. In return, Canada has agreed to reduce its tariffs by a formula cut averaging one third across products described in chapter 44 of the HS.

These weighted-average cuts translate into meaningful tariff reductions on a wide variety of wood products in a number of markets of key importance to Canada. These include tariff reductions by the EU, Japan and Republic of Korea ranging up to 100 percent on individual products including a variety of commodity-grade products as well as certain value-added wood products of key interest to Canadian exporters. Examples include:

- Tariffs on softwood lumber will be reduced by approximately 50 percent in Japan and Republic of Korea and eliminated in the EU. In particular, Japan's tariff on spruce/pine/fir (SPF) lumber will decrease from an applied rate of 8 percent to a bound rate of 4.8 percent, thus helping Canadian lumber exporters compete with U.S. exports of hemlock lumber, which enter Japan duty-free.



- Tariffs on softwood plywood will fall by as much as 30 percent in the EU, 50 percent in Republic of Korea and even more in Japan. However, in the case of the EU, they will retain their current GATT-bound duty-free quota, which allows a cap of 600 000 cubic metres of softwood plywood to be imported duty-free from all sources each year, with amounts over 600 000 cubic metres being subject to import duty. However, the tariff rate applied to imports over quota will decrease in five equal steps from 10 percent to 7 percent.
- Tariffs on fibreboard (oriented strandboard) and particleboard will fall by 30 percent in the EU and by as much as 50 percent in Japan.
- Tariffs on windows and doors as well as their frames will be reduced by approximately 50 percent in Republic of Korea. In the EU, tariffs will be reduced by 50 percent for windows and their frames and phased out completely for doors and their frames and thresholds.
- Tariffs on prefabricated wooden buildings will be reduced by approximately 50 percent in the EU and Republic of Korea, and eliminated entirely in Japan.

In addition to a general decrease in tariffs, Canadian exporters will benefit from an absolute reduction in the degree of tariff escalation, especially in key developed-country markets such as the EU and Japan. Over the medium to longer term, this should encourage increased investment in more advanced stages of value-added production.

Coupled with tariff reductions and/or tariff bindings of various types offered by the developing countries, exports of wood and wood products will benefit from more open and secure access to many markets where Canadian wood exports previously faced barriers of various sorts. This will be especially important in the emerging Pacific Rim markets, where exports of wood products have sustained strong growth.

## Forest Products

### *Non-tariff Barriers*

Non-tariff barriers (NTBs) encompass a wide variety of measures including anti-dumping and countervail actions, various technical barriers to trade including sanitary and phytosanitary measures, preshipment inspection and import licensing procedures among others. While many of these areas were addressed in part by various agreements concluded in previous rounds of negotiations (Kennedy and Tokyo Rounds), they were accepted by less than one third of the GATT contracting parties, being largely limited to developed countries. This aspect has posed broad implications for trade overall, with many NTBs impacting trade in forest products in particular.

In addition to the success of the Uruguay Round negotiations in substantially reducing and/or eliminating tariffs on forest products, the accompanying agreements, most of which are more extensive versions of those originally concluded in previous rounds, will create important benefits for Canadian exports of forest products. Most importantly, the Uruguay Round agreements on non-tariff measures now extend to **all** signatory countries, which now form the World Trade Organization (WTO) to replace the GATT, and provide global coverage of rules

and disciplines. This provides increased transparency and predictability and will, as well, provide procedural guarantees to exporters. Secondly, the improvements made to the dispute settlement procedures established under the individual agreements will enhance the enforceability of all commitments. These commitments and disciplines on WTO members will secure greater market access and will help maintain open and accessible markets for world trade.

Agreements accompanying the Uruguay Round negotiations having the greatest effect on international trade in the forest products industries include the revised Anti-dumping Code, the Import Licensing Procedures Agreement, the Agreement on Preshipment Inspection, the Technical Barriers to Trade Agreement, the Agreement on Sanitary and Phytosanitary Measures and the Agreement on Subsidies and Countervailing Measures. The major highlights of these new agreements and their implications for the paper and allied and wood industries groups are discussed below.

The "revised" Anti-dumping Code substantially strengthens the current code, under which differences in interpretation have led to inconsistencies in the national anti-dumping laws of our major trading partners. The new agreement contains important improvements, particularly in relation to the procedures to be followed in initiating and conducting an anti-dumping investigation. These improvements will constrain various international practices, particularly those of the U.S., which have been a concern for the lumber industry. The addition of a five-year limit (sunset clause) will also restrict the ability of parties, including the U.S., to maintain anti-dumping duties for prolonged periods.

These measures, as well as others included in the revised agreement, will provide an important balance between the interests of paper and wood exporters who may need assurance that anti-dumping rules are not used to harass Canadian exporters and those of our domestic producers who may need legitimate access to the protection of the Anti-dumping Code against injurious dumping.

Most importantly, the revised Anti-dumping Code has been integrated into the new dispute settlement process under the WTO. This will improve Canada's ability to seek prompt redress in instances where foreign anti-dumping measures do not follow the agreement.

The Import Licensing Procedures Agreement, revised as part of the Uruguay Round negotiations, has been strengthened and made more transparent and predictable. These features will particularly benefit newsprint exporters, who have faced import licensing requirements in many developing-country markets.

Parties to the Import Licensing Procedures Agreement that maintain licensing procedures must publish sufficient information to allow importers (and those concerned with the import process) to know the basis on which licences are granted. Signatories that institute new licensing





procedures must also notify the WTO Import Licensing Committee of any changes and provide detailed information. These new requirements will reduce the administrative burden on both importers and exporters and generally reduce the restriction of trade caused by import licensing procedures.

Preshipment Inspection (PSI) is often used by the governments of developing countries to check shipment details, including the quality, quantity and price of goods ordered from abroad. Inspection is usually carried out under contract in the exporting country by specialized private companies acting on behalf of the developing country. The new Preshipment Inspection Agreement places various obligations on PSI user governments, including non-discrimination, transparency, protection of confidential business information, avoidance of unreasonable delay and the use of specific guidelines for conducting price verification. Obligations are also placed on contracting parties exporting to PSI users, including non-discrimination in the application of domestic laws and regulations. PSI provisions will help regulate the legitimate use of such practices by developing countries, while at the same time providing greater security for exporters interested in serving developing-country markets. This should provide greater security particularly for exporters of paper and paperboard and lumber products.

The Technical Barriers to Trade Agreement, which extends and clarifies the former agreement on technical barriers to trade, aims to ensure that technical regulations and standards and related testing and certification procedures do not create unnecessary obstacles to trade. Innovative features of the agreement are its coverage of processing and production methods related to the characteristics of the product itself and, especially important, its urging of members to use international standards as far as practicable.

The new Technical Barriers to Trade Agreement will guarantee the transparency of product standards creation and related procedures that will be backed by a Committee on Technical Barriers to Trade to oversee and resolve technical disputes. This and other provisions in the agreement will help ensure that NTBs such as building codes and standards, restrictions on timber-frame construction and other general restrictions subjecting commodity-grade products to technical requirements will be subject to improved disciplines.

Finally, the Technical Barriers to Trade Agreement also enhances the ability of Canadian-based (or foreign) laboratories or firms to gain accreditation under another country's laboratory regime. This will promote the further nomination of agencies, such as the National Research Council of Canada, to serve in a capacity as the official Canadian agency authorized to conduct rating tests on building products to Japanese specifications. This will help ensure greater predictability of access in international markets for a variety of forest products.

The Agreement on Sanitary and Phytosanitary Measures is a companion agreement to the one on technical barriers. It addresses technical barriers in the application of sanitary and phytosanitary measures in food safety, animal and plant regulations. The agreement recognizes that while governments have the right to take necessary measures, these should be applied only to the extent necessary to protect human, animal or plant life or health.

Under the Agreement on Sanitary and Phytosanitary Measures, WTO members are encouraged to base measures on international standards, guidelines and recommendations. Members may, however, maintain or introduce higher levels of protection if there is scientific evidence or as a consequence of consistent risk decisions based on an appropriate risk assessment. A number of other provisions including transparency requirements have helped establish new world ground rules for the application of sanitary and phytosanitary measures to minimize various trade-distorting practices. This agreement will be of particular interest to exporters of wood and wood products who have faced discriminatory measures in the EU market as a result of allegations of pinewood nematode infestation in softwood lumber.

The Agreement on Subsidies and Countervailing Measures contains a clear set of rules on subsidies and countervail measures that will go far to ensure that trade remedy measures are applied only in legitimate cases. For the first time ever, "subsidy" is defined, based on the concept of a financial contribution by a government that confers a benefit. This new definition will particularly benefit the softwood lumber industry in limiting the ability of the U.S. to unilaterally define a subsidy for the purpose of countervail. At the same time, this definition will also ensure that generally available federal and provincial assistance measures in such areas as social policy and labour adjustment programs will not be subject to countervailing actions.

Most importantly, the new Agreement on Subsidies and Countervailing Measures establishes an exemption ("carve-out") from countervail for generally available subsidies, and for certain regional development assistance, research and development, and environmental programs. For example, the new carve-out for environmental measures provides a means for governments to assist existing firms to adopt to new environmental requirements imposed by law and/or regulations that result in greater constraints and financial burden on firms, but does not permit the introduction of measures aimed at creating a competitive trade advantage.

Finally, similar to the Anti-dumping Code, the subsidies agreement incorporates a sunset clause that restricts the ability of parties, including the U.S., to maintain countervail measures for prolonged periods. This agreement has also been integrated into the dispute settlement process under the new WTO.



## Key Industry Considerations and Market Opportunities

The paper and allied sector has traditionally been Canada's most successful export sector in terms of overall world market share. As a world leader in sales of basic commodity-grade products, the Canadian paper industry is well positioned to seek out market opportunities in the new, liberalized world trading environment brought about by the successful conclusion of the Uruguay Round negotiations. To do this, the industry will need to maximize its traditional comparative advantages to produce and market commodity-grade paper and allied products at competitive prices in global markets.

The Canadian industry will also need to build on its core strengths to expand into the more sophisticated segments, particularly the value-added and specialty segments of the industry, to fully seize the many opportunities now opened by the Uruguay Round pact.

Traditionally, the Canadian industry has been strongly focused on the U.S. market, the world's largest paper market. Building upon the access provided by the Canada-United States Free Trade Agreement and subsequently the North American Free Trade Agreement, which includes Mexico, the Canadian paper industry has gradually expanded exports to the North American market across a broader range of primary paper and paperboard products and, more recently, a wider variety of value-added products including coated papers, wallpaper, carton and packing materials, and specialty paper articles.

However, in past years, while Canada shipped paper products to over 130 different countries, the Canadian paper and allied industries sector has not offered world markets the same breadth of product mix in sales as in the North American market. Key sales to offshore markets such as the European Union and Japan have traditionally focused on sales of various commodity-grade products: market pulp and newsprint, with some sales of basic paper and paperboard products.

As a result of the Uruguay Round, the reduction and eventual elimination of tariffs will allow Canadian exporters to compete more vigorously in the European market, especially against our traditional competitors, Finland and Sweden, who have long enjoyed free access to the European Union paper market. Product opportunities with specific growth opportunities include newsprint, kraftliner, light-weight coated paper, toilet or facial tissue, sack kraft, and sanitary towels and napkins.

Despite Canada's increased market access to the European market through the elimination of paper tariffs, the European Union has insisted on retaining its long-standing quota on newsprint. While the quota constraints will continue in place, the effect of the quota will be eliminated over time once the EU newsprint tariff is phased out. Over the short to medium term, Canada's large share of the existing quota will ensure that Canadian newsprint continues to receive preferential treatment in the European Union market over that of other, emerging non-European suppliers.

The elimination of tariffs in Japan and Republic of Korea will open these markets to a much wider range of paper products. Canada will need to build on traditional strengths such as newsprint, kraftliner, paper and paperboard, sack kraft and toilet and facial tissue to encompass a wider range of products such as printing and writing papers. Efforts will also need to be directed to capture individual market opportunities among some of the faster-growing Asia-Pacific economies.

Under the Uruguay Round agreements and as a result of the new role to be played by the WTO, Canadian paper producers will also gain access to many developing-country markets, especially for primary commodity-grade products such as newsprint. Greater market access will afford greater possibilities across a wider range of products than previously available in past years. The reduction and/or binding of tariffs and the reduction in NTBs will aid marketing efforts and allow greater transparency.

The wood sector shares many similar attributes with the paper and allied sector, especially its overt focus on the United States market, which is dominated overwhelmingly by sales of lumber. In addition to continuing opportunities in the North American market, the Uruguay Round agreements will bring new and expanded export opportunities to both Europe and Japan.

In Europe, tariff elimination in softwood lumber will be beneficial in maintaining levels of exports of softwood lumber, especially if sanitary and phytosanitary measures are appropriately addressed. Other opportunities exist for commodity-grade panel products in general as a result of a phased reduction in tariffs on panels. Specific panel product opportunities include particleboard, oriented strandboard and especially softwood plywood, which all benefit from tariff reductions. On the value-added side, various products including manufactured housing, door and window frames among other products will benefit from substantial reductions or complete tariff elimination.

In the Far East, particularly Japan, tariff reductions in softwood lumber will improve the competitiveness of Canadian spruce/pine/fir lumber against that of other wood species, particularly those shipped by our American competitors. The Japanese market has also seen demand rising for softwood plywood and panel products such as oriented strandboard, which will benefit from substantial reductions in tariffs. Canada will also be able to build on its emerging strengths in manufactured housing where Japanese tariffs will be eliminated. In other parts of the Asian market, products such as hardwood lumber, fibreboard and other higher-value-added products including manufactured housing will also benefit from increased market access as a result of the Uruguay Round. This will provide Canadian exporters with the opportunity to diversify markets and move further into sales of panel products and other higher-value products.





**Table 3**  
**Value of Exports and Foreign Tariff Rates on Forest Products,**  
**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Exports, 1993	European Union Tariff Rates		Japan Tariff Rates		Republic of Korea Tariff Rates	
			Before	After	Before	After	Before	After
		(\$ millions)	(percent)					
<b>Paper and allied products:</b>								
4702.00	chemical wood pulp, dissolving grades	165.2	0	0	2.2	0	10.0	0
4703	chemical wood pulp, soda or sulphate, other than dissolving grades	3 731.0	0	0	2.2	0	5.0–10.0	0
4704	chemical wood pulp, sulphite, other than dissolving grades	217.8	0	0	2.2	0	5.0–10.0	0
4705.00	semi-chemical wood pulp	390.7	0	0	2.2	0	5.0	0
4801.00	newsprint	6 078.9	4.9–9.0	0	3.1–5.8	0	25.0	0
4802	uncoated paper and paperboard	1 408.8	3.8–9.0	0	4.2–6.6	0	25.0–50.0	0
4804.11	unbleached kraftliner	172.4	6.0–9.0	0	2.5–3.5	0	20.0	0
4810.21	light-weight coated paper	332.3	9.0	0	4.1	0	25.0	0
4814	wallpaper; window transparencies, of paper	196.6	4.1–12.5	0	3.1–5.7	0	60.0	0
4819	cartons, boxes, bags, etc. of paper, paperboard, etc.	223.0	11.0–12.0	0	3.8–5.7	0	30.0	0
Total: paper and allied products		14 882.9						

**Table 3 (concluded)**

**Value of Exports and Foreign Tariff Rates on Forest Products,  
Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Exports, 1993	European Union Tariff Rates		Japan Tariff Rates		Republic of Korea Tariff Rates	
			Before	After	Before	After	Before	After
		(\$ millions)	(percent)					
<b>Wood and wood products:</b>								
4401.21	fuel wood, coniferous	94.1	3.2	0	0	0	5.0	2.0
4403.20	wood in the rough, untreated, coniferous	190.2	0	0	0	0	10.0	2.0
4407.10	sawn wood, coniferous	9 179.8	0-4.9	0	6.0-10.0	4.8-6.0	20.0	10.0
4407.99	sawn wood, other non- coniferous (maple, birch, poplar, etc.)	219.9	0-4.9	0-2.5	0-10.0	0-6.0	20.0	10.0
4408.90	veneer sheets, sheets for plywood, non-coniferous	181.9	0-6.0	0-4.0	0-15.0	0-5.0	20.0	10.0
4409.10	wood, continuously shaped or V-jointed, etc., coniferous	185.7	3.0-4.0	0	7.5-10.0	3.6-5.0	20.0	13.0
4410.10	particleboard of wood	683.9	10.0	7.0	10.0-12.0	5.0-6.0	20.0	20.0
4412	plywood/veneered panels	180.9	10.0	6.0-7.0	15.0-20.0	6.0	20.0	20.0
4418.50	shingles and shakes	267.4	4.9	0.0	5.8	2.9	30.0	13.0
4421	other articles of wood	160.8	2.5-7.5	0-4.0	5.8	0-3.9	25.0-30.0	13.0
Total: wood and wood products		11 877.6						



**Table 4**  
**Value of Imports and Canadian Tariff Rates on Forest Products,**  
**Before and After Implementation of the World Trade Organization**

HS Code	Product Description (major products)	Value of Imports, 1993	Canada Tariff Rates	
			Before	After
		(\$ millions)	(percent)	
<b>Paper and allied products:</b>				
4701 to 4705	wood pulp	178.0	0	0
4707	waste and scrap of paper or paperboard	174.6	0	0
4802.51 to 4802.60	other paper and paperboard	199.1	1.0-8.0	0
4810.11 to 4810.12	paper and paperboard for writing, printing, etc.	225.0	0-9.2	0
4810.31 to 4810.39	kraft and paperboard	128.1	6.5-9.2	0
4816.20	self-copy paper	63.9	8.0	0
4818.40	sanitary towels, tampons, etc.	133.5	10.2-17.5	0
4819.10	cartons, boxes and cases of corrugated paper or paperboard	106.1	9.2	0
4819.20	folding cartons, boxes and cases, etc., of non-corrugated paper or paperboard	96.9	10.2	0
4823.51	other paper and paperboard, for writing, printing, etc.	87.0	9.2	0
Total: paper and allied products		2 926.6		
<b>Wood and wood products:</b>				
4403.20	wood in the rough, untreated, coniferous	154.3	0	0
4407.10	sawn wood, coniferous	154.0	0	0
4407.91	sawn wood, oak	172.0	0	0
4409.10 to 4409.20	wood, continuously shaped or V-jointed, etc.	183.6	0-5.5	0-3.7
4412	plywood	125.5	8.0-15.0	5.3-9.7
4418	builders' joinery and carpentry of wood (windows, doors, etc.)	125.0	0-12.5	0-8.2
Total: wood and wood products		1 536.5		





